LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

1. (Cancelled).

2. (Currently Amended) A cartridge in accordance with claim ~~1~~8, wherein said output module outputs data corresponding to the specified detection condition, together with the result of the detection.

3. (Currently Amended) A cartridge in accordance with claim ~~1~~8, wherein the recording material is an ink of a predetermined color.

4. (Currently Amended) A cartridge in accordance with claim ~~1~~8, wherein the recording material is a toner for any one of a photocopier, a facsimile, and a laser printer.

5. (Currently Amended) A cartridge in accordance with claim ~~1~~8, wherein said sensor detects presence or absence of the recording material in the chamber.

6. (Currently Amended) A cartridge in accordance with claim ~~1~~8, wherein said sensor measures at least one of a temperature, a viscosity, a humidity, a particle size, a hue, a remaining quantity, and a pressure of the recording material.

7. (Currently Amended) A cartridge in accordance with claim ~~1~~8, wherein said output module outputs the result of the detection by radio communication.

8. (Currently Amended) ~~A cartridge in accordance with claim 1, wherein~~A cartridge having a chamber to hold a recording material used for printing therein, said cartridge being mountable on a printing apparatus, said cartridge comprising:

a sensor that detects a state of the recording material held in the chamber, said sensor ~~is~~being a piezoelectric element having a resonance state that varies with a variation in state of the recording material~~, and~~;

a condition reception module that receives an externally specified detection condition of said sensor;

a detection module that performs a detection under the specified detection condition, wherein said detection module applies an excitation pulse to said piezoelectric element and measures a vibration of said piezoelectric element in response to the excitation pulse; and

an output module that outputs a result of the detection.

9. (Original) A cartridge in accordance with claim 8, wherein said detection module detects a resonance frequency of said piezoelectric element as a time required for at least one vibration of said piezoelectric element.

10. (Previously Presented) A cartridge in accordance with claim 9, wherein said condition reception module receives specification of a number of vibrations, which is used as a criterion to measure the time required for the vibration of said piezoelectric element, and

said detection module measures a time required for the specified number of vibrations of said piezoelectric element, and outputs vibration-related data used for measurement of the resonance state of the piezoelectric element, together with the measured time.

11. (Previously Presented) A cartridge in accordance with claim 10, wherein the number of vibrations received by said condition reception module is specified by an occurrence of a starting vibration, on which the measurement starts, and an occurrence of a terminating vibration, on which the measurement ends, and

said detection module determines the vibration-related data, based on the occurrences of the starting vibration and the terminating vibration.

12. (Currently Amended) A cartridge in accordance with claim ~~1~~8, said cartridge further comprising:

a memory that stores a parameter corresponding to the state of the recording material held in the chamber.

13. (Currently Amended) A cartridge in accordance with claim ~~1~~8, said cartridge further comprising:

a radio communication module that transmits data to and from the printing apparatus by radio communication,

wherein said cartridge receives the externally specified detection condition from the printing apparatus via said radio communication module.

14. (Original) A cartridge in accordance with claim 13, wherein said radio communication module has a loop antenna for the communication, and comprises a power supply module that utilizes an electromotive force induced in said antenna to supply electric power into said cartridge.

15-19. (Cancelled).